

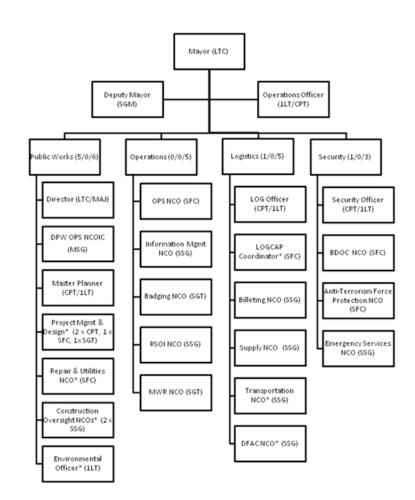


# **Contingency Base Camp Operations and Management**

Staffing and Organization

H. Garth Anderson and Kurt Kinnevan

September 2013



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Staffing and Organization

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## Final Report

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# **Abstract**

Since 2001, contingency operations in the US Central Command (CENTCOM) theater have established a large number of base camps, of various sizes. To manage base camps, the Army and other Services have commonly used the concept of establishing a "Mayor Cell" — the functional equivalent of a garrison commander at a Continental United States (CONUS) installation. An adequately staffed Mayor Cell can effectively manage a base camp up to 10,000 personnel. Larger base camps or base clusters may require multiple Mayor Cells.

However, over the past two decades, the US Forces' "organic" base camp capabilities have diminished, i.e., our forces increasingly come to rely on costly contract support to supply essential functions and services. This circumstance, combined with insufficient or non-existent infrastructure, lack of trained or experienced personnel, and individual stove-piped systems, contributes to operational gaps that distract commanders from their primary mission: inefficient operations of base camps; and security, safety, environmental and health risks to deployed forces. This study was undertaken to address operations and management (O&M) requirements requisite for the effective administration and support of a contingency base camp.

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# **Preface**

This study was conducted for Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASA[ALT]) under Project AMSCO 622784T4100, "Military Facilities Engineering Technology," Work Unit 122G16, "Forward Operating Bases." The technical monitor was John Munroe, US Army Natick RD&E Center, PM-FSS.

The work was managed and executed by the Environmental Processes Branch (CN-E) of the Installations Division (CN), Construction Engineering Research Laboratory (CERL). The CERL principal investigator was H. Garth Anderson. Ms. Deborah R. Curtin is Chief, CEERD-CN-E, and Dr. John T. Bandy is Chief, CEERD-CN. The associated Technical Director was Alan Anderson, CEERD-CV-T. The Director of ERDC-CERL is Dr. Ilker R. Adiguzel.

CERL is an element of the US Army Engineer Research and Development Center (ERDC), US Army Corps of Engineers. The Commander and Executive Director of ERDC is COL Kevin J. Wilson, and the Director of ERDC is Dr. Jeffery P. Holland.

# 1 Introduction

## 1.1 Background

Since 2001, contingency operations in the US Central Command (CENTCOM) theater have established a large number of base camps, of various sizes. To manage base camps, the Army and other Services have commonly used the concept of establishing a "Mayor Cell" — the functional equivalent of a garrison commander at a Continental United States (CONUS) installation. Most successful Mayor Cells at larger bases are led by a Lieutenant Colonel and Sergeant Major, ranks commensurate with their level of responsibility. An adequately staffed Mayor Cell can effectively manage a base camp up to 10,000 personnel. Larger base camps or base clusters may require multiple Mayor Cells, one cell per additional 10,000 in camp population.

However, over the past two decades, the US Forces' "organic" base camp capabilities have diminished, i.e., our forces increasingly come to rely on costly contract support to supply essential functions and services. This circumstance, combined with insufficient or non-existent infrastructure, lack of trained or experienced personnel, and individual stove-piped systems, contributes to operational gaps that distract commanders from their primary mission: inefficient operations of base camps; and security, safety, environmental and health risks to deployed forces. This study was undertaken to address operations and management (O&M) requirements requisite for the effective administration and support of a contingency base camp.

# 1.2 Objectives

The primary objective of this work was to identify O&M requirements for the effective administration and support of a contingency base camp. This included:

- identifying and detailing current requirements, processes, protocols, and procedures being used to operate and manage base camps
- identifying and detailing current base camp staffing approaches for various size camps
- providing recommendations for base camp staffing and training requirements to improve facility planning and operations.

# 1.3 Approach

To accomplish the project objectives, researchers:

- 1. Conducted an extensive literature search of current and historical documents on contingency base camps, and documented personal experiences of study personnel.
- Reviewed developing, current and historical doctrine, including openly available literature on base camp operations (e.g., in Vietnam, the Balkans, Desert Shield/Storm, and current contingency operations in the CENTCOM theater).
- 3. Analyzed After Action Reviews and Center for Army Lessons Learned (CALL) products.
- 4. Attended relevant base camp related conferences and unit workshops such as the Regional Support Group Training Advisory Board meetings.
- 5. Made site visits to training base camps in the Continental United States (CONUS) and in the CENTCOM theater to observe and or validate current practices, including:
  - a. seven contingency base camps in Afghanistan in January 2011:
    - (1) Bagram Airfield, (2) New Kabul Compound, (3) Camp Phoenix,
    - (4) Forward Operating Base (FOB) Salerno, (5) Kandahar Airfield,
    - (6) FOB Lindsay, and (7) Camp Leatherneck.
- 6. Gathered data on organization and staffing, processes, training issues, and resource requirements, and to capture lessons learned and recommendations, conducted extensive interviews of key personnel, including:
  - b. base personnel, include individuals and units of current and former mayor cells/staffs
  - c. Directorate of Public Works (DPW) directors who served in Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), and the Balkans.
  - d. DPW and contracting personnel, and Logistics Civil Augmentation Program (LOGCAP) providers
  - e. personnel involved in the support of base camp operations such as engineers, logisticians, contract managers, and contractors.
- 7. Analyzed the gathered information, drew conclusions and made recommendations to improve the administration and support of a contingency base camps.

# 1.4 Scope

This analysis applies to all US Army units that may be assigned responsibility for base camp management in a contingency operation. Other ser-

vices may also apply recommended methodologies to fill gaps in their own doctrine or when engaged in management of joint bases with Army forces.

# 1.5 Mode of technology transfer

This report will be made accessible through the World Wide Web (WWW) at URLs:

http://www.cecer.army.mil

http://libweb.erdc.usace.army.mil

#### 1.6 Terms and definitions

#### 1.6.1 Base camp definition

The TRADOC Base Camp Functional Area Analysis (TRADOC 2009) defines a "base camps" as:

... an evolving military facility that supports the military operations of a deployed unit and provides the necessary support and services for sustained operations. Base camps consist of intermediate staging bases and forward operations bases and support the tenants and equipment. While base camps are not permanent bases or installations, they develop many of the same functions and facilities the longer they exist. A base or base camp can contain one or more units from one or more Services. It has a defined perimeter and established access controls and takes advantage of natural and man-made features.

#### 1.6.2 Base camp terminology

This study assumes that the term "base camp" applies to all contingency base locations, and is therefore equivalent to other such designations as: Forward Operating Base, Combat Outpost, Contingency Operating Location, Firebase, and any other terms used in the current theater. Also, multiple, synonymous terms that denote base camp staffs include: Mayor Cell, Garrison Commander, Base Support Group, Battlefield Operating System – Installation (BOS-I), and Camp Commandant.

#### 1.6.3 Base camp functions

To be considered a base camp, an installation should provide most of these core functions:

- command and control
- life support
- force protection
- power projection
- fires support
- communications support
- reception, staging, onward movement, integration (RSOI) support
- maintenance and logistics support
- transportation support
- training support
- MWR
- emergency Services.

#### 1.6.4 Base camp sizes

The study uses three standard base camp sizes, based on military population only. It should be understood that base camps will also support a sizable civilian and contactor population, often equaling or exceeding the military population:

Brigade: 6000 soldiersBattalion: 1000 soldiersCompany: 150 soldiers.

# 2 History

The Vietnam War saw an extensive base development program. By 1970, 27 major base camps and numerous tactical airfields and firebases had been built (Dunn 1991, p 136). With the start of forces build up in 1965, the military initially found itself relying heavily on contractors to execute the construction program. Gradually, military engineer forces assumed a greater share of the construction workload (Dunn 1991, p 133). Base camp management and operation methods and structures varied greatly between the services. The Army relied heavily on contractor personnel, 80% of that workforce being Vietnamese. Air Force facilities staffs were mostly military, using the model of assigning military personnel to CONUS installations to gain facility engineering skills, then deploying them to theater. The Navy fell somewhere in between, assigning Seabees to public works staffs, but using contractor manpower extensively (Dunn 1991, pp 90-91).

At the conclusion of the war, LTG Dunn (1991, p 94) offered several lessons learned:

Most officers assigned to facilities engineering duty in Vietnam lacked former experience, and it normally took much of their one-year tour to become knowledgeable in facilities engineering regulations and requirements. The Vietnam experience has highlighted the need for a broader base of both officers and enlisted men with facilities engineering training and experience.

#### Dunn (1991, p 97) further adds that:

Our experience also clearly demonstrated the need for the Army to maintain, in its active force structure, an adequate number of military personnel trained in facilities engineering to provide management and supervision of contractor and direct-hire civilian maintenance forces and to man sufficient numbers of military facilities engineering detachments to ensure continuity of essential operations ...

From the end of the Vietnam War with the emergence of Cold War, European-centric doctrine such as the Active Defense and Air-Land Battle, the importance of the base camp as component of overall military operations

effectively disappeared. This doctrine, with its linear nature and reliance on highly mobile heavy mechanized forces diminished the need to establish large fixed base camps (Anderson 1990-91). This type of warfare culminated in Operations Desert Shield and Desert Storm, with the heavy armored coalition forces quickly routing the Iraqis through speed and overwhelming force. Because of the nature of this war and its short duration, base camps were not required to project or sustain combat power. Although some short duration camps and assembly areas were used by combat forces, most fixed base camps were logistics bases or transportation hubs in rear echelon areas. Because of the mature military infrastructure in Saudi Arabia, fixed air bases and well developed military cities were readily available for coalition forces (Anderson 1990-91)

The Balkans saw the reemergence of the use of fixed base camps, necessary in a low-intensity conflict such as peacekeeping. The military developed a number of enduring base camps such as Camp Bondsteel in Kosovo and Camp Able Sentry in Macedonia. These bases were used as power projection platforms as well as providing life support, morale, welfare, and recreation (MWR), maintenance, logistics and all other vital activities. Balkans base camp operations also saw the emergence of the "Mayor Cell" concept, a dedicated staff responsible for the operation and management of the base camp. This cell was typically staffed by a small number of military personnel while receiving maintenance support from the LOGCAP contractor and from limited capability of organic mission engineer units. LOGCAP contractors also performed a bulk of base camp construction (Rector 2010).

In 2001 with the initiation of OEF in Afghanistan, the need for fixed base camps to support combat operations became critical. After the fall of the Taliban, it was necessary to establish FOBs throughout the country from which to launch combat operations and sustain coalition forces. US and coalition forces established major base camps at Bagram Airfield (BAF) in the north and Kandahar Airfield (KAF) in the south, both of which were former Soviet air bases with some usable fixed facilities and runways capable of supporting air resupply and combat operations.

At these bases, the first assigned units dedicated to base management and operations came from the Army Reserve's Facility Engineer Group. These seven person Facility Engineer Teams (FETs) were charged with establish-

ing public works operations responsible for the master planning, project design, and construction oversight. FET personnel included a lieutenant colonel, two majors, two captains, and two senior NCOs. The peacetime mission of the FET was to provide engineering and design services to Army Reserve facilities and installation DPW. Initially FETs reported directly to the Coalition-Joint staff in theater. Eventually, OEF bases introduced garrison commanders, the precursor to mayor cells. At some bases, the FET and its DPW operation were brought under the oversight of the garrison commander, similar to the relationship in a CONUS installation.

As the theater developed, theater commands and special operations forces developed other FOBs and fire bases, especially along the Pakistani border. These smaller bases were often self-supporting, but typically received facility support on an area basis through ad-hoc mobile support teams dispatched from KAF and BAF (Anderson 2002).

Prior to the invasion of Iraq in 2003, a number of semi-permanent camps were built in Kuwait, serving as training and jumping off locations for potential operations in Iraq. Camps such as New York and Virginia were established in 2002 as training camps and future staging areas for US forces.

After the initial invasion operations concluded, the military established FOBs throughout Iraq, generally located at captured critical facilities such as airfields and Iraqi military bases, or simply at a base where a combat unit had stopped and consolidated. Major bases included Victory Base, Al Asad Air Base, and Anaconda. Facility Engineer Teams and Detachments were again deployed to establish DPW operations at the major base camps. Soon after, Mayor Cells began to appear at these bases, responsible for overall base management and operation. Mayor Cells were typically adhoc from mission units and received little to no training on base camp operations. Often, other combat arms units such as Field Artillery were specifically assigned the Mayor Cell mission.

As the base camps and the management requirement matured, Area Support Groups (ASGs) and their functional successors, Regional Support Groups (RSGs), began to assume this mission. Other units such as Maneuver Enhancement Brigades and Brigade Combat Teams (BCTs) were also given base camp management responsibility.

# 3 Base Camp Support to Operations

#### 3.1 Base camp functions

As defined earlier (Section 1.6.3, p 4), a base camp and its staff must provide specific functions to tenant units and their soldiers.

#### 3.1.1 Command and control

A base camp staff must be able to provide command and control to units assigned to the base camp. These may be units augmenting the camp staff or tenant units with no other designated higher headquarters. Base camp staffs typically are responsible for terrain management within the camp perimeter.

#### 3.1.2 Life support

This includes living areas, dining facilities, latrines and showers, and laundry services.

#### 3.1.3 Force protection

The camp must provide active and passive force protection measures. This includes maintaining the secure perimeter, entry control points, personnel bunkers, and other forms of protection from direct and indirect fire. The base camp staff may also have responsibility for operating the Base Defense Operations Center (BDOC) and a Quick Reaction Force (QRF).

#### 3.1.4 Public works and engineering support

All base camps require provision of potable water, waste water collection and treatment, solid waste collection and disposal, power production and distribution, environmental management, and facility planning, design, construction management, and maintenance.

#### 3.1.5 Power projection

In a non-linear battlefield, the base camp serves as a power projection platform for combat forces that operate outside the wire.

#### 3.1.6 Fires support

A base camp may have to provide both space and logistics to support for indirect fire assets such as artillery and mortars.

#### 3.1.7 Communications support

A base camp may have to establish or support basic communications infrastructure.

#### 3.1.8 RSOI support

Larger bases are often designated as RSOI facilities, providing support for arriving and departing units.

#### 3.1.9 Maintenance and logistics support

Tenant units must be provided with unit maintenance areas; motor pools; vehicle wash racks; petroleum, oil, and lubricants (POL) storage and distribution; and other supply storage areas (Class III Package, Class IV, Class IX, etc).

#### 3.1.10 Contract management

A base staff could be expected to use a large number of supply, service, and construction contracts. Staff personnel often serve as a Contract Officer Representative (COR) for one or more contracts.

#### 3.1.11 Transportation support

Most bases operate, manage and maintain significant fleets of non-tactical vehicles for on base use or ground transportation capability for movement among bases in a base cluster.

#### 3.1.12 Training support

This may include operation and maintenance of training areas and weapons ranges.

#### 3.1.13 Morale, welfare, and recreation

Operate and maintain gymnasiums and sports fields, recreation centers, internet cafes, phone centers, Post Exchange (PX) support, local vendor

bazaars, American Forces Network (AFN) support, and other soldier morale activities.

#### 3.1.14 Emergency services

These include military police and fire protection.

# 3.2 Base camp staffing units and resources

#### 3.2.1 Dedicated unit

A base camp can be staffed by a dedicated unit with a specified mission of base camp management. These units are typically assigned to brigade size and larger camps. The principal unit with this specified mission is the Regional Support Group. For the largest bases or base clusters, a Maneuver Enhancement Brigade may be assigned this mission. A combat arms unit such as a Field Artillery Battalion may be designated a "Provisional" support unit and be assigned the base camp management mission for a specific location.

#### 3.2.2 Regional Support Group (RSG)

The RSG is a Reserve Component Unit found in both the Army Reserve and Army National Guard. RSGs evolved primarily from previous Corps and Area Support Groups. The RSG is the only unit with base camp management in its Mission Essential Task List (METL).

METL: Provide Base Camp Sustainment (ART 4.1.4.3) Provide base camp sustainment facilities and services to Soldiers and other authorized personnel conducting full spectrum operations. Provision of this support to authorized individuals and units occurs regardless of their physical location within or external to a base, facility, installation, camp, or station.

RSGs are allocated to brigade size base camps and larger. The RSG is a Colonel-level command and staff. Depending on its assigned location, the RSG will likely require functional augmentation cells or modules to meet mission requirements. These may include engineer teams, contract management or additional mayor cells. The RSG structure is still evolving with the draft, proposed modification table of organization and equipment (MTOE) shown in Figure 1.

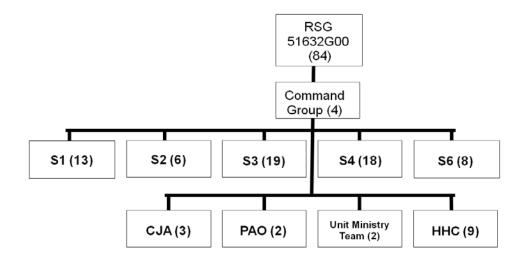


Figure 1. Draft, proposed regional support group MTOE.

At Kandahar Airfield in 2011, the 645<sup>th</sup> RSG (US Army Reserves [USAR]) provided command and control of the US portion of the North Atlantic Treaty Organization (NATO) base. The RSG had significant augmentation in engineers, logistics and contracting personnel to meet the complex requirements and large population of the base (US population >20,000). Specified missions included RSOI support, contract management, MWR, facility engineering and DPW operations and non-tactical vehicle fleet management (645th Regional Support Group 2011).

At Victory Base Complex, Iraq in 2009, the 326<sup>th</sup> Area Support Group (USAR) assumed the base camp management mission. The ASG is the predecessor organization of the RSG, with a similar mission, but with a more robust structure and greater organic capabilities. ASGs have since been deactivated or transformed into RSGs. Victory Base Complex (VBC) is a mega-base consisting of a number of separate camps combined into a single complex. The base has a total population of approximately 80,000, of which contractor personnel comprised 50-60%.

To provide adequate management capability for the entire base, the ASG created six separate mayor cells each led by a Lieutenant Colonel and Sergeant Major. Each cell consisted of approximately 17 total personnel. The ASG used a single large DPW operation to provide support to the entire VBC. Each mayor cell did have a small DPW support cell to provide interface and response to tenants and maintain work order status (326th Area Support Group 2011).

#### 3.2.3 Maneuver Enhancement Brigade (MEB)

The MEB is a large, versatile organization commanded by a Colonel in active component units and a Brigadier General in the reserve component. The MEB has a large staff, a number of critical functional sections vital to base camp management such as engineers and military police. It can be further augmented into a task force capable of assuming control of a large mega-base or base cluster.

According to Field Manual (FM) 3-90.31 (HQDA 2009), the MEB is a unique multifunctional C2 headquarters designed to perform maneuver support (MANSPT) operations for the echelon it supports. Task organization is based on identified mission requirements for the echelon it is supporting. It may be placed in support of Army, joint, interagency, or multinational headquarters. The headquarters is staffed and optimized to conduct combined arms operations integrating a wide range of MANSPT related technical branches and combat forces. The MEB can organize, provide, or employ unique battalion Task Force (TF) and company team combined arms technical experts to conduct MANSPT operations across full spectrum operations. Figure 2 shows the Maneuver Enhancement Brigade Organization.

In 2010-2011, TF Rushmore, comprised primarily of the 196th MEB from the South Dakota National Guard, was assigned to provide command and control of the Kabul Base Cluster, consisting of seven separate bases in the Kabul metropolitan area. The MEB provided overall command and control, logistics, and security coordination to the base cluster. Each individual base was assigned its own Mayor Cell that reported to the MEB TF. Mayor cells at both Camp Phoenix and New Kabul Compound (NKC) were comprised of 16 personnel led by a lieutenant colonel and sergeant major. The Mayor Cell leadership had higher rank commensurate with their level of responsibility (Appendix A, pp 42, 43).

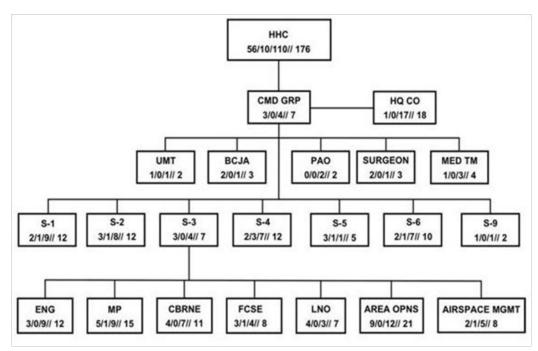


Figure 2. Maneuver enhancement brigade organization.

Mayor cells assumed primary responsibility at their respective bases for: billeting, emergency services, force protection, escort and badging, terrain management, dining facility (DFAC) supervision, work order and maintenance management, contract management, self-help coordination, LOGCAP services coordination, and MWR (Wiesner 2010-11, NKC Mayor Cell 2010).

The MEB created a robust DPW capability by augmenting the existing engineer structure with additional engineer soldiers and civilian contractors. Two officers were professionally registered engineers. This 17-person cell, while physically located at Camp Phoenix, provided support on an area basis to all base camps in the Kabul Base Cluster. TF DPW cell performed the following functions: operations (operations and maintenance [O&M] and LOGCAP coordination), environmental, billeting (capacity and force flow for base cluster), facility design, construction management (project development and quality assurance), land management to include master planning and property leases, mapping (Appendix B, p 48) (Bruce 2011).

# 3.3 Base camp management as secondary mission

#### 3.3.1 Brigade Combat Team

A BCT may be required to provide base camp management, especially when establishing a new operating location. The BCT has limited base camp management capability depending on functional augmentation. Most of this capability could come from the Brigade Special Troops Battalion (BSTB), which has combat engineers, military police, and other specialized units. The Brigade Support Battalion (BSB) has capabilities for life support of and logistics of organic elements. Figure 3 shows the BCT organization.

#### 3.3.1.1 Capabilities

The BCT can provide many of the following base camp management capabilities: command and control, infrastructure survey, minor construction and repair, force protection, organic power generation (tactical, spot generators), basic life support and sustainment, and basic environmental.

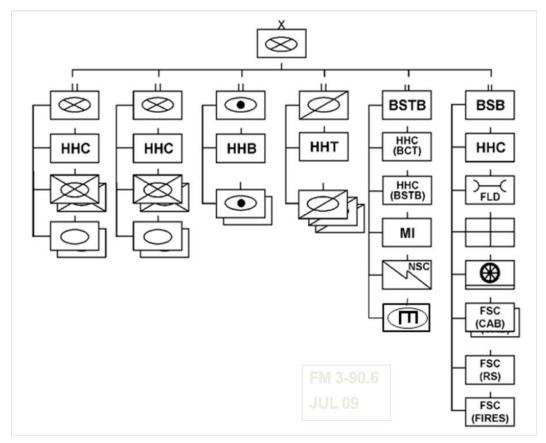


Figure 3. Brigade combat team (HQDA 2009).

#### 3.3.1.2 Augmentation

Support of additional camp population from outside the BCT is generally not feasible without additional augmentation of such functions as DPW Operations, contract management (Construction, LOGCAP), and certain logistics requirements (water production, laundry, billeting for contractors). Below are potential functional modules that can augment BCT capabilities.

- mayor cell
- DPW or Facility Engineer Team
- Contracting cell
- preventive medicine
- emergency services (fire protection, military police [MP])
- · materiel handling.

#### 3.3.1.3 Bagram Airfield

At Bagram Airfield, a facility with a population of greater than 30,000 and a large coalition and contractor population, base camp management responsibilities were assigned to the 38th IBCT (TF Red Bulls). Because the BCT also had responsibility for their International Security Assistance Force (ISAF) mission outside the wire, they created TF Archer to execute the base camp management mission. The Brigade Support Battalion (BSB) was augmented with elements from the BSTB and a more robust engineering section.

Given the size of BAF, the largest base in Afghanistan, TF Archer was the largest mayor cell in theater. Consisting of 65 personnel and led by the BSB command element (LTC and CSM), the TF managed the following functions (Task Force Archer 2010–11):

- command and control
- transportation management
- billeting
- base engineering and public works
- land management
- joint RSOI
- force protection
- food service oversight
- Joint Visitor Bureau

#### • MWR.

TF Archer was significantly augmented with engineer personnel to execute the base engineering and public works mission. Led by an engineer LTC not organic to the BCT, this cell consisted of personnel from the BSTB engineer company with an attached civilian master planner and a Facility Engineer Team for a total of 22 personnel (Appendix A, p 44). Functions included:

- · project and construction management
- contract management for gravel, concrete, fencing, paving, etc.
- management of Joint Acquisition Review Board (JARB) and Installation Facility Use Board (IFUB) processes
- master planning
- coordination with LOGCAP, Defense Contract Management Agency (DCMA), US Army Corps of Engineers (USACE), US Air Force (USAF)
   Prime base engineer emergency force (Prime BEEF)
- work order management
- LOGCAP oversight.

TF Archer was successful in managing assigned functions at BAF, but at a cost to the BCT's overall mission. The BSB command group spent a majority of their time managing the base camp rather than overseeing support operations of his organic companies to infantry units executing the ISAF mission.

#### 3.3.1.4 FOB Salerno

At FOB Salerno, with a camp population of approximately 5600, base camp management fell to TF Rakkasans, a BCT from the 101st Airborne Division. The BASEOPS (base operations), or mayor cell was created from the BCT Headquarters Company. The cell was minimal, consisting of the HHC commander (CPT), company Executive Officer (1LT), the company 1SG, a repair and utilities non-commissioned officer (NCO) (SSG), and an administrative clerk (SPC). BASEOPS coordinated minor maintenance work orders with LOGCAP, managed billeting, and the IFUB process. Many base management functions fell to organic brigade staff sections such as S4 for supply, transportation and contract management, and S2 for antiterrorism/force protection (AT/FP).

Base engineering support was provided by the brigade engineer section consisting of two majors, one captain, three NCOs, and augmented with

four civilians. Base engineering was responsible for project and construction management and quality assurance, master planning input and enforcement, and contract management. Attached civilians were responsible for environmental management, preparing contract scopes of work, and electrical safety and power management (McCracken 2011).

#### 3.3.1.5 FOB Lindsey

FOB Lindsey is a smaller base camp adjacent to Kandahar Airfield with a population of 1200 soldiers. The base is occupied by a cavalry squadron responsible for providing training support to an adjacent Afghan National Army compound. Camp mayor duties were assigned to the squadron Headquarters Troop, and consisted of two captains, the troop first sergeant, and a small number of NCOs and soldiers to provide administrative support. Functions included work order management, terrain management, master plan input and enforcement, LOGCAP coordination, and construction oversight. Master planning and design engineering support was provided by the Prime BEEF Squadron at KAF. The Lindsay mayor cell was given full responsibility and authority by the squadron to execute their base camp management mission, allowing them to effectively manage the camp (Kelly 2011).

#### 3.3.2 Marine Expeditionary Force (MEF)

Camp Leatherneck is a Marine Corps base with a population of approximately 20,000 in southwest Afghanistan whose base camp management was assigned to the MEF. BOS-I or mayor cell responsibilities were divided among the Camp Commandant, the MEF Headquarters Group (MHG) and the Regional Command-Southwest C7 (Engineer) cell. The commandant had responsibility for LOGCAP oversight, project management, maintenance work orders, base master planning, and contract oversight (per the COR). The MHG oversaw safety and preventive medicine. The Regional Command Southwest (RC-SW) Assistant Chief of Staff (C7) provided most of the engineering functions including camp construction planning and facilities management.

The MEF assumed this mission without any engineer or other functional augmentation. A MEF does not have a robust engineering capability, with mostly combat engineers dedicated to combat operations. The Comman-

dant has small engineer platoon primarily dedicated to tactical power generation and distribution.

During interviews with the MEF, Marine personnel outlined several recommendations for organizational changes to facilitate base camp management. The primary recommendation is for the Camp Commandant to become the de facto mayor cell. The first change would be to fill the Camp Commandant slot with a Lieutenant Colonel instead of a Captain to provide an appropriate rank level. Other organic MHG functions such as billeting, hazardous materials (HAZMAT), and transportation would be reassigned to the commandant. The other was to augment the MEF with a significant engineering capability to assume the base engineer and public works mission. This would free the RC-SW C7 to manage engineer operations in their assigned region. Total strength of the Camp Commandant cell would be 85 personnel (Appendix A, p 45) (MHG, Camp Leatherneck 2011).

## 3.4 Facility engineers

Dedicated facility engineering support can come from a variety of sources and from all three services.

#### 3.4.1 USAR facility engineer teams and detachments

Up until 2010, the primary source of Army facility engineers was the Facility Engineer Group (FEG). The FEG was a unit consisting of 30 seven-person FETs and 16, 15-person Engineer Facility Detachments (EFD). A majority of FET/EFD personnel work in the civilian engineering and construction fields. The FEG as a command was deactivated in 2010, with FETs converting to FESTs and EFDs transferring to the USAR engineer brigades. Figures 4 and 5 show the Engineer Facility Detachment organization and the Facility Engineer Team, respectively.

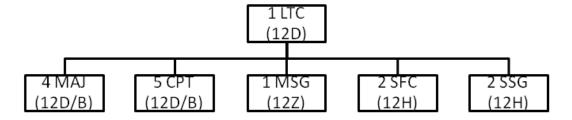


Figure 4. Engineer facility detachment.

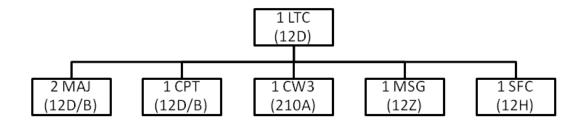


Figure 5. Facility engineer team.

#### 3.4.2 US Army Corps of Engineers field force engineering

#### 3.4.2.1 Forward Engineer Support Team Advance (FEST-A).

FEST-A provides technical engineering support to contingency operations. FEST-A is normally a five- to eight-person team that consists of a military team leader (Major), geographic information system specialist, and civil, mechanical, and electrical engineers. The team can be augmented with structural, environmental and other engineering skills. FEST-A has an allocation of one per four BCTs. It conducts initial critical infrastructure assessments to include sewer, water, environmental, academics and trash assessments, technical engineering and design assistance, limited contracting support, and real estate acquisition support to include reachback capabilities (Ting 2011, HQUSACE Undated-a).

#### 3.4.2.2 Forward Engineer Support Team – Main (FEST-M)

FEST-M is the largest type team in the Forward Field Engineering (FFE) program and provides technical engineer planning and design, contract construction, environmental and geospatial engineering support and real estate acquisition and disposal. Consisting of 36 or more military and Corps civilian personnel, FEST-M has design capabilities from various disciplines to include electrical, mechanical, civil, and environmental engineers; and logistical and contracting and resource management. The Contingency Real Estate Support Team (CREST) can provide real estate planning and acquisition support to a base camp (HQUSACE Undated-b).

#### 3.4.2.3 Base Camp Development Team (BDT)

The BDT is a non-deployable district-based team that can quickly provide base development engineering, master planning and facilities design for staging bases, base camps, FOBs, displaced persons camps, and any simi-

lar requirement. Each BDT can provide: theater facilities design, force protection engineering, environmental assessment and engineering, assessment of theater utility systems, and cost estimating (HQUSACE Undated-c).

#### 3.4.3 US Air Force

The Air Force has extensive facility engineering capability through facility engineer teams and Rapid Engineer Deployable Heavy Operational Repair Squadron Engineers (REDHORSE) Engineer Units. The USAF also deploys military personnel who are assigned to Base Civil Engineer Squadrons at both CONUS and outside continental United States (OCONUS) permanent installations. These active duty personnel have come up through a facility engineer career track and are well trained in public works operations.

Expeditionary Prime BEEF [Base Engineer Emergency Forces] Group (EPBG) and Expeditionary Prime BEEF Squadrons (EPBSs) have been used extensively in OEF for master planning, engineering design, project management, and light troop labor for minor construction and repair. EPBS units now produce the "ultra-light" master plans for each base camp. This new format has proven exceptionally useful to the base camp and is easily updated when required. The EPBG and two EPBS were effective in providing this support on a theater wide basis (Oshiba 2011).

#### 3.4.4 US Navy

Naval Mobile Construction Battalions (NMCBs or Seabees) have a well developed public works capability. Seabee units contain a high density of trained engineers and construction trade professionals. Naval officers can also rise through a facility engineering career field, serving in both Seabee units and on naval base public works staffs. Seabee units can also provide facility construction and repair and water well drilling (Merry 2010).

# 4 Other Base Camp Management and Support Organizations

Other base camp management and support organizations include the US Army Materiel Command (AMC), DCMA, and the US Army Installation Management Command (IMCOM).

AMC provides extensive support to base camp operations through its LOGCAP contract. LOGCAP contractors provide essential base camp services to include facility operations and maintenance, logistics support, minor construction, food services, and environmental strategies. LOGCAP has become indispensable to the effective management of contingency base camps.

DCMA can provide base camp support through the acquisition and management of specific base support contracts. It typically requires that base personnel provide the COR for a specific contract.

As some contingency base camps develop into an enduring camp or permanent facility, the Army is evaluating the feasibility of IMCOM assuming control of the facility, much like a CONUS installation. Soto Cano Air Base, Honduras is under a pilot program to test this concept.

# 4.1 Base camp staffing and organization

Much of contingency base camp staffing and functions is analogous to a CONUS installation.

#### 4.1.1 Base Commander

Unlike a CONUS installation, the base camp commander is likely the senior mission commander at that location.

#### 4.1.2 Mayor and Mayor Cell

The base camp mayor cell is the functional equivalent of the garrison command. Although the mayor cell is not a doctrinal or formally designated organization, it has become the de-facto structure and staff for base camp management.

#### 4.1.2.1 Mayor and Non-commissioned Officer in Charge (NCOIC)

Through interviews with current and former mayor cells staffs, the most successful cells had a Lieutenant Colonel serving as the mayor and a Sergeant Major as the Senior NCO. This high rank structure is commensurate with the level of responsibility and gives them sufficient rank to enforce standards and ensure compliance with camp policies. It also allows the mayor to be more effective in establishing cooperative command-support relationships with higher commands and the numerous tenant organizations on a base camp (CALL 2008).

#### 4.1.2.2 Functions

Although individual mayor cells will have the latitude to organize for the mission, it should fulfill these functions:

- DPW
- logistics
- security
- contract management
- force protection
- terrain management
- MWR
- billeting
- tenant activates (landlord)
- emergency services
- life support/quality of life.

#### 4.1.2.3 Span of Control

A fully staffed and fully functional mayor cell should contain about 20-30 personnel. This count includes the DPW staff as a part of the cell. Depending on the camp size and mission, many functions could be handled by one person. This cell has the ability to manage a camp of around 10,000 personnel (military and contractor). As camp populations increase, an RSG or MEB may require additional mayor cells as an augmentation.

#### 4.1.2.4 Operations

These functions are often the responsibility of Mayor Cell Operations:

- information management (non-tactical)
- badging

- RSOI support
- MWR
- terrain management
- range management.

### 4.1.2.5 DPWs must be able to manage these functions:

DPWs must be able to manage these functions:

- master planning
- design and project management
- construction management and quality assurance
- water distribution
- waste water disposal
- power distribution
- solid waste management
- environmental management to include hazardous waste (HAZWASTE).

#### 4.1.2.6 Logistics

The Mayor Logistics cell should be prepared to execute these functions:

- LOGCAP coordination
- billeting
- supply, including POL operations
- transportation (non-tactical vehicle fleet)
- DFAC.

#### 4.1.2.7 Security

These functions may the responsibility of the security section:

- BDOC
- AT/FP
- emergency services (fire, law enforcement).

Figure 6 shows the recommended Base Camp Management Structure.

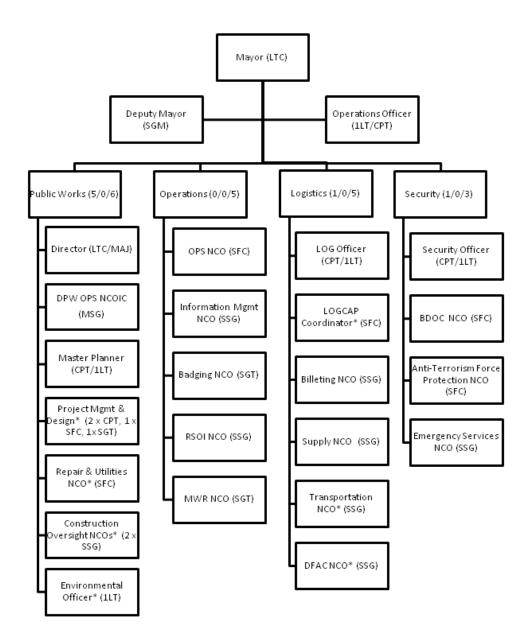


Figure 6. Recommended base camp management structure.

# 4.2 Support of smaller base camps

Base camps smaller than brigade size, such as battalion (600) and company (150) should not expect to have a robust, dedicated base camp management staff. Although smaller camps will have similar functional requirements as larger camps, the resources needed are scaled down. The type of operation, amount of existing infrastructure, and duration of presence will dictate the level of support required. Several approaches can be applied to support these smaller camps.

#### 4.2.1 Mayor Cell

A Brigade-size base camp (1000-5000 personnel) will likely require a mayor cell to operate the base camp. A camp of this size could likely function with a light mayor cell of 5-10 personnel. This could be less rank heavy with a major or captain serving as mayor and a master sergeant or sergeant first class serving as NCOIC. Individuals will likely have multiple functions within the cell.

#### 4.2.2 Organic Support

Smaller camps may have to rely heavily on organic assets and support from parent units for many base camp support functions. These include quality of life, many classes of supply such as food, POL, and maintenance.

#### 4.2.3 Functional Augmentation

Smaller base camps may be augmented with small functional elements such as facility engineer support teams, LOGCAP contractor support, or local support contracts for water supply or waste disposal services. Currently in Afghanistan, a base camp size of 150 triggers LOGCAP support (Wolf 2009-10).

#### 4.2.4 Area Support

Smaller base camps may be augmented with small functional elements such as facility engineer support teams, LOGCAP contractor support, or local support contracts for water supply or waste disposal services. Currently in Afghanistan, a base camp size of 150 triggers LOGCAP support (Wolf 2009-10).

# 4.3 Baseline manning requirements

Based on current successful practices in OEF and OIF, a fully staffed mayor cell is required for each increment of 10,000 in total base camp population. An RSG alone is sufficient to staff a brigade size camp, but would require augmentation of an additional mayor cell for each additional 10,000 increase in camp population. At a large base cluster, such as the Kabul Metro Area, an MEB may be the most suitable unit. Each separate base would have its own mayor cell or be supported on an area basis. Table 1 lists base camp baseline manning requirements.

Size	MEB	RSG	Mayor Cell	Mayor Cell (light)	Area Support
Large Base Cluster	1		1 per base		
Brigade & Larger		1	1 per 10K		
Brigade (-) or Battalion				1	Х
Company					Х

Table 1. Base camp baseline manning requirements.

## 4.4 Contractor support

Contractor support is essential to base camp operation and management. Contractors can replace soldiers for routine camp functions, freeing them up for mission requirements.

#### 4.4.1 Elements of contractor Support

Many elements of contractor support are indispensable to mission accomplishment:

- base camp maintenance and repair
- construction
- DFAC operations
- power generation
- water treatment
- waste disposal
- HAZMAT.

#### 4.4.2 Contractor Population

Data from the theater shows that the larger the camp, the greater the percentage of contractor population. At camps of Brigade (-) size, contractor population may be 40%, at Brigade size up to 50%, with the percentage approaching 60% at the largest camps such as Victory Base Complex, Iraq ( $326^{th}$  Area Support Group 2011).

#### 4.4.3 Contract Management

Contract management at contingency base camps can be challenging. Often, multiple contracts serve a single camp. For some contracts such as LOGCAP, a military LOGCAP planner resides at the base to perform COR duties. Most MILCON construction projects will be managed by the Corps of Engineers. However, numerous contracts are awarded by other agen-

cies, but must be managed by base personnel. The contracting officer may not even be in theater. It is imperative that the mayor cell have a number of COR trained and qualified individuals that can be appointed to manage specific contracts at the camp, especially for DPW and logistics support operations.

#### 4.5 Training

#### 4.5.1 Pre-Deployment

Of all the base camp staffs interviewed, none received extensive formal pre-deployment training on base camp operations and functions. Some units on their own initiative arranged for informal training with local military installations to gain information on facility management and processes. Many units foresaw the need for contract management and obtained training to certify select personnel as COR. While all unit staffs received formal Battle Command Training through the 75th Division, constructive and simulated scenarios do not adequately represent the types of missions and situations that a base camp mayor staff may face. In OIF, the CALL observed that units tasked with base camp operations were generally dissatisfied with the pre-deployment training received (CALL 2010).

#### 4.5.2 METL Based

RSGs, the only units to have base camp management as part of their METL, have made some efforts to develop training for their units. The RSG Training Advisory Board meets annually to share AAR lessons learned, presented by recently deployed units.

#### 4.5.3 Public Works

Most units that were augmented by Reserve Component (RC) engineers for public works and construction management relied on those engineers' already acquired civilian skills. Engineer augmentation elements tended to be ad-hoc and were self taught in DPW operations. Some received informal training from CONUS military installations or Installation Management Command on facility operations. While useful to a degree, most CONUS processes are not directly transferable into a contingency environment. Engineer personnel also recognized the importance of having COR trained personnel on staff. Very few engineer personnel tasked for

construction oversight were trained in government quality assurance processes.

#### 4.5.4 Logistics

Very few personnel received formal training on LOGCAP capabilities and contract limitations. This resulted in great frustration as base personnel learned of these restrictions as they encountered specific issues. Although LOGCAP contract managers were well versed and present at most locations, they were not expected to oversee daily operations of the contract.

#### 4.5.5 Recommendations

#### 4.5.5.1 Pre-deployment

The 75<sup>th</sup> Division was making a good effort by sending Observer-Controller-Trainer personnel into theater during the PDSS process to gain greater knowledge of base camp operations. This will greatly enhance scenario development for Battle Command Training exercises. The 75<sup>th</sup> should continue this process as well as coordinate with TRADOC base camp proponents to ensure that BCTP is consistent with emerging doctrine.

The Center for Army Lessons Learned recommends deployed units assist follow-on units by providing experienced personnel and focused situation training during pre-deployment train up. Training should reference existing continuity books and SOPs. (CALL 2010)

#### 4.5.5.2 METL

As the RSG METL continues to be refined, supporting tasks for base camp O&M should be developed and integrated into unit pre-deployment training and BCTP.

#### 4.5.5.3 Public Works

A training program for DPW operations needs to be developed that focuses on contingency base camps, not CONUS installations. Key elements would include master planning, contract management (to include COR training), construction management (to include quality assurance), IFUB and JARB processes, work order management, and environmental management.

#### 4.5.5.4 Logistics

Logistics personnel should receive formal training in contract management (to include COR training) and LOGCAP capabilities.

#### 4.6 Continuity of operations

#### 4.6.1 Transfer of Authority (TOA)

A well planned, well executed TOA is critical to effective continuity of base camp operations. This ensures the transfer of critical information such as the policies, base master plan, and contracts. It also provides the necessary familiarization of the camp for the incoming staff.

#### 4.6.2 Planning

Planning for the TOA begins with the PDSS by the incoming unit to learn the mission and area of operations. CONUS pre-deployment training should include constructive Battle Command Staff Training to allow the staff to operate in a simulated theater environment. To the maximum extent possible, the incoming unit should mirror the functional organization of the outgoing staff, ensuring that there is no gap in the TOA.

#### 4.6.3 TOA Execution

Most successful TOAs last 7 to 10 days. It must be well planned and event driven. Many units have found it beneficial for selected volunteer personnel from the outgoing staff extend in theater. Contractor personnel also can fill gaps and provide continuity during and after TOA. It is also critical that outgoing units prepare detailed continuity books.

#### 4.6.4 Rotation of Personnel

Another model that can enhance continuity and minimize RIP/TOA issues is to rotate personnel on a 25%/50%/25% staggered method. This avoids the complete turnover of corporate knowledge in a short period (CALL 2010).

#### **5 Summary and Recommendations**

#### 5.1 Summary

To identify O&M requirements for the effective administration and support of a contingency base camp, this work has provided an historical context for base camp development (Chapter 2), and has:

- identified and detailed current requirements, processes, protocols, and procedures being used to operate and manage base camps (Chapter 3).
- identified and detailed current base camp staffing approaches for various size camps (Chapter 4).

#### 5.2 Recommendations

The following recommendations are made for base camp staffing and training requirements to improve facility planning and operations.

#### 5.2.1 Guidance

The Army should prepare more formal guidance on required base camp core functions and staffing, including capabilities for sources for functional augmentation if required. Units designated for base camp management missions should know and understand the core functions. The Regional Support Group should maintain this function on their METL. The Maneuver Enhancement Brigade should also consider including base camp management in their METL.

#### 5.2.2 Training

The Army should develop a more formal training program for base camp management. Units assigned a base camp management mission should receive appropriate training in the areas described Section 4.5.

#### 5.2.3 Large enduring bases

Large enduring bases should be staffed by a provisional organization with a permanent military and civilian staffs rather than by rotating military units. These enduring bases should fall under the organizational structure of IMCOM. Planning for individual replacements to the staff to occur on a staggered schedule would allow greater continuity of corporate knowledge, more consistent application of guidance and standards, and free up combat units to execute their primary missions.

#### **Acronyms and Abbreviations**

Term Definition

AFN American Forces Network
AMC US Army Materiel Command

ASAALT Assistant Secretary of the Army for Acquisition, Logistics, and Technology

ASG Area Support Group

AT/FP Antiterrorism/Force Protection

BAF Bagram Airfield
BASEOPS Base Operations

DOT British A Combat To

BCT Brigade Combat Team

BDOC Base Defense Operations Center
BDT Base Camp Development Team
BEEF Base Engineer Emergency Forces
BOS Battlefield Operating Systems

BSB Base Support Battalion

BSTB Brigade Special Troops Battalion

C7 Assistant Chief of Staff

CAV Cavalry
CDR Commander

CEERD US Army Corps of Engineers, Engineer Research and Development Center

CENTCOM US Central Command

CERL Construction Engineering Research Laboratory

CONUS Continental United States

COR Contract Officer Representative

CREST Contingency Real Estate Support Teams

CSM Command Sergeant Major

DCMA Defense Contract Management Agency

DFAC Dining Facility

DPW Directorate of Public Works
EFD Engineer Facility Detachments

EPBG Expeditionary Prime BEEF [Base engineer Emergency Forces] Group
EPBS Expeditionary Prime BEEF [Base engineer Emergency Forces] Squadrons

ERDC Engineer Research and Development Center

FEG Facility Engineer Group

FEST-A Forward Engineer Support Team Advance

FET Facilities Engineering Team
FFE Forward Field Engineering

FM Field Manual

Term Definition

FOB Forward Operating Base
HAZMAT Hazardous Materials
HAZWASTE Hazardous Waste

HHC Headquarters & Headquarters Company
HHT Headquarters & Headquarters Troop

IBCT Infantry Brigade Combat Team
IFUB Installation Facility Use Board

IMCOM Installation Management Command ISAF International Security Assistance Force

JARB Joint Acquisition Review Board

KAF Kandahar Airfield

LOGCAP Logistics Civil Augmentation Program

LTC Lieutenant Colonel
LTG Lieutenant General

MAJ Major

MANSPT maneuver support

MEB Maneuver Enhancement Brigade
MEF Marine Expeditionary Force
METL Mission Essential Task List

MHG Marine Expeditionary Force (MEF) Headquarters Group

MP Military Police

MTOE Modification Table of Organization and Equipment

MWR morale, welfare, and recreation
NATO North Atlantic Treaty Organization

NCO non-commissioned officer

NCOIC Non-Commissioned Officer in Charge

NKC New Kabul Compound

OCONUS outside continental United States
OEF Operation Enduring Freedom

OIC Officer In Charge

OIF Operation Iraqi Freedom
POL Petroleum, Oil, and Lubricants

Prime BEEF Prime base engineer emergency force

PX Post Exchange

QRF Quick Reaction Force RC Reserve Component

RC-SW Regional Command Southwest

REDHORSE Rapid Engineer Deployable Heavy Operational Repair Squadron Engineers

RSG Regional Support Group

RSOI Reception, Staging, Onward Movement, Integration

TermDefinitionSFstandard formSPCSpecialistSSGStaff SergeantTFTask Force

TOA Transfer of Authority
TR Technical Report

TRADOC US Army Training and Doctrine Command

US United States

US Army Corps of Engineers

USAF US Air Force

USAR US Army Reserves
VBC Victory Base Complex
WWW World Wide Web
XO Executive Officer

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## Appendix A: Base Camp Mayor Structure Examples

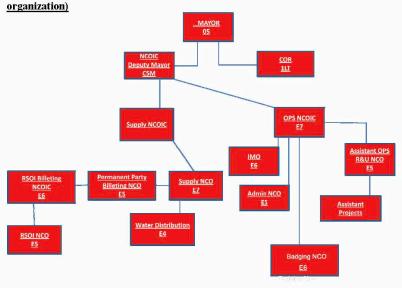
#### Example base camp mayor structure from the Operation Enduring Freedom Joint Engineer Operations August 2010 Initial Impressions Report

#### Appendix 8 to Chapter 4:

#### **Example Mayoral Cell Structure**

Example Mayor Cell Mission Statement: To provide and coordinate a synchronized effort of support and service to ensure safe and secure living and working conditions for service members and civilians of FOB "XYZ." To ensure that all interactions with our office reflect our dedication to the improvement of these conditions on FOB "XYZ." TACON for base operations includes areas such as force protection, life support billeting and good order and discipline. The base commander has the ability to task tenant units with the exception of Special Forces, for base operations issues.

#### Example Mayor Cell Task Organization for a Medium-Large Size FOB (-BDOC organization)



#### ROLES and RESPONSIBILITIES

#### **OIC Mayor Cell**

Provides and coordinate a synchronized effort of support and service to ensure safe and secure living and working conditions for service members and civilians of FOB S. Ensures that all interactions within the mayor reflects a dedication to the improvement of conditions on FOB S

- Member of long range planning committee/ work order committee /force protection. working group
- Primary interface with PMO, Contractors, tenant units

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- Contract disputes/ break in services.
- Space issues / facility management

Interface with LSO on LOGCAP issues

#### NCOIC Mayor Cell

- Assists the FOB Mayor in his duties
- Controls tenant taxes and VIP room
- Resolves tenant issues at senior NCO level (PAD Sheriff meetings)
- Primary agent for approval of Daily Bulletin/ FOB S All e-mails
- LN vendor selection for on FOB Shops

#### Operations NCO:

Coordinates, battle tracks and spot checks force protection, terrain management, MWR facilities and contractors. Manages daily battle rhythm for mayor Cell. Ensures information is disseminated to higher and lower. Reacts to daily unforeseen situations (lost weapons, work orders, FOB operations) Oversees admin requirements for Mayor Cell personnel (Training, PT, Quality of life, Accountability)

- Tracking daily operations of contractors, TCN Escorts, for quality of work
- Issues FOB S All updates based on Mayors CCIR
- Range NCOIC coordinates rang us
- Monitors black, white, and grey water and trash trucks
  - Coordinates allocation of MHE, NTV LN
    (Busses, cranes, forklifts, general laborers, excavators, generators, and heaters)
- Issues keys
- Controls Range issue and recovery of range equipment

#### R&U / Hazmat NCC

Manages public works projects on FOB S in conduction with EFD. Coordinates with Safety Office to ensure proper storage and disposal of all waste materials. Coordinates with LOGCAP contractor, AMC for hazardous material spill Mitigation.

- Responsible for Mayor Cell construction projects
- Assist with MHE
- Assist with the daily operations of the Mayor Cell
- Supervision and training of LN assigned to Carpentry Shop
  - Oversight on DRMO Yard

#### IMO:

Assist the Operations NCO with admin requirements of Mayor Cell

- Responsible for AFN distribution to tenant units.
- Maintain a distribution map of all AFN devices updated quarterly (FOB BDE G6 shop will provides equipment)
- Maintains mayor Cell's webpage.
- Ensures all IT equipment is updated and working
- Assist COR in ordering need IT equipment
- Maintain a distribution map of all civilian internet services

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Maintains JAMM Systems at DFAC

#### HR Specialist / Admin:

Assist the Operations NCO with admin requirements of Mayor Cell personnel, maintains accurate admin records for Mayor Cell daily operations.

- PERSTAT POC
- Operates the Mayor Cell Service Counter
- Tracks TCNs and LNs coordinates with COR on LN contract issues.
- Daily bulletin
- Key custodian, conducts monthly physical security inventory
- Administrative duties as assigned
- Coordinates MWR activities, programs, related to FOB and Mayor Cell
- MWR COR

#### Supply NCOIC:

Responsible for managing Mayor Cell property books, Conducts monthly inventories of all TPE

- Mayor Cell property book
- Issuing bulk supplies on FOB

Laundry Soap Beds Tents /Lighting Bottled Water Cots Class IX parts

Class IV

Beds MWR Equipment Mattresses Washer & Dryer

- MWR Rep works with Admin
- NCOIC in absence of CSM
- Works with COR Billeting on supply issues and concerns
- Vehicle status

#### **Assistant Supply NCO:**

Assists Supply NCO with duties and responsibilities of managing TPE

- Responsible for water distribution
- Supports the Supply NCOIC
- Assist in the daily operations of the Mayor Cell
- Accountability and maintenance of TPE and contracted (NTV MHE) vehicles

#### **Billeting NCO:**

Manages all living quarters in hard stand structures, RLB and tents for transient and permanent parties. Recommends Life Support Areas (LSA) improvement projects on FOB S (tent, RLB, and LSS replacement)

- Primary POC for all RIP/TOA billeting needs

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- Tracking and assigning billeting on FOB, focused on adherence to Sand Book Standards.
- Weekly PERSTAT collection and data base management.
- NTV Vehicle registration for FOB

#### Billeting Assistant RSOI:

Assists billeting NCO with assigned duties

- Conducts white water chlorination
   Direct oversight of RSOI
- PERSTAT collection and database management

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#### **Base camp mayor structure from the New Kabul Compound**

#### TASK FORCE RUSHMORE-NEW KABUL CLUSTER BSG

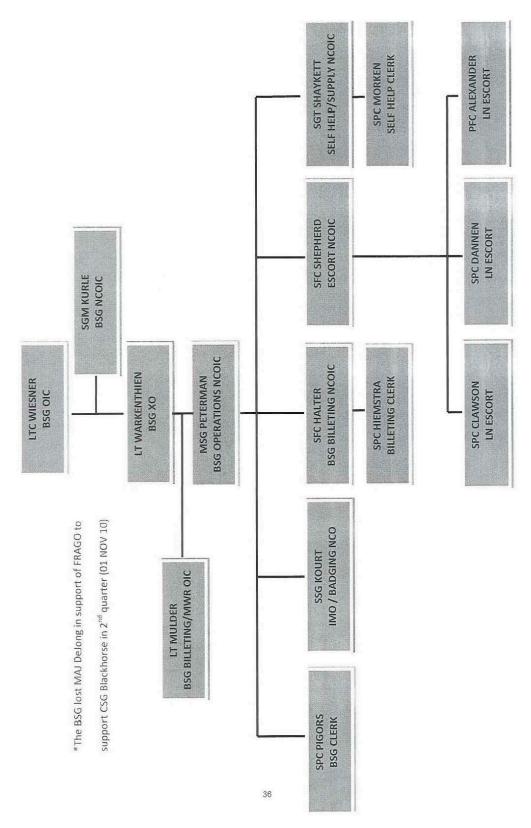
#### Director:

LTC Kirk Oldre -Mayor	12 June 2010-Present
MAJ Thomas Krull -XO/Deputy Garrison OIC	12 June 2010-Present
1LT Cody Byrum -COR	12 June 2010-Present
1LT Margaret Bendorf - ATO OIC	12 June 2010-Present
MSG Terry Helget - Garrison NCOIC	02 June 2010-Present
SFC Russell Thompson -Staff NCOIC/Garrison/COR/Badging	12 June 2010-Present
SSG Lorrie Cressy -Staff NCOIC/Garrison/DEERS/COR/	12 June 2010-Present
SSG Dennis Lauseng -ATO NCOIC (Anti-Terrorism Officer)	12 June 2010-Present
SSG Christopher Montileaux –DEERS NCOIC	12 June 2010-Present
SSG Clay Rees -Billeting NCOIC/ COR	12 June 2010-Present
SGT Clyde Linker -Billeting NCO/Garrison Supply NCOIC	02 June 2010-Present
SPC William Allen -Log Clerk/Lay Yard Manager	12 June 2010-Present
SPC Jason Buller - DHR Specialist	12 June 2010-Present
SPC Sean Hanson -Fueler- Class 1 Manager	12 June 2010-Present
PFC Amy Major -PAO/Safety Officer	30 August 2010-Present
PFC Stephen Wudel -DES/LN Escort	12 June 2010-Present
SPC Richard Preston- PAO/ Safety Officer	12 June 2010-19 Aug 2010

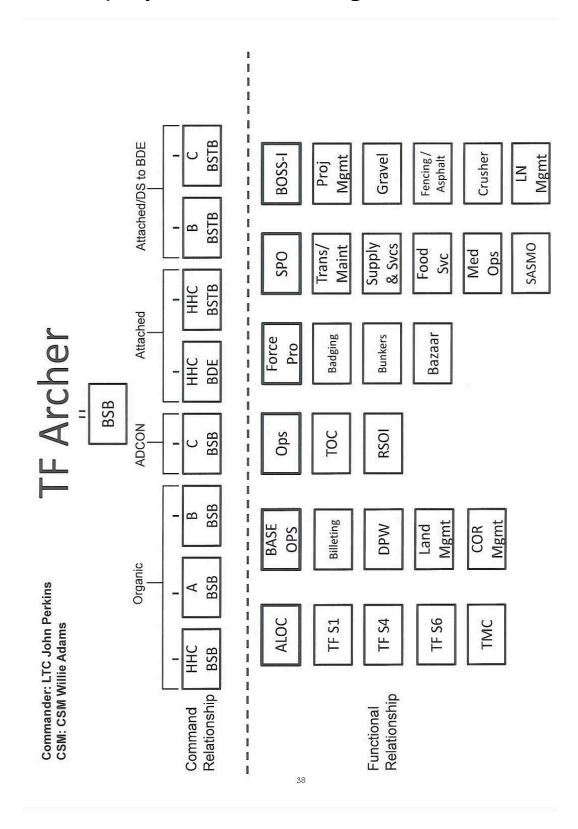
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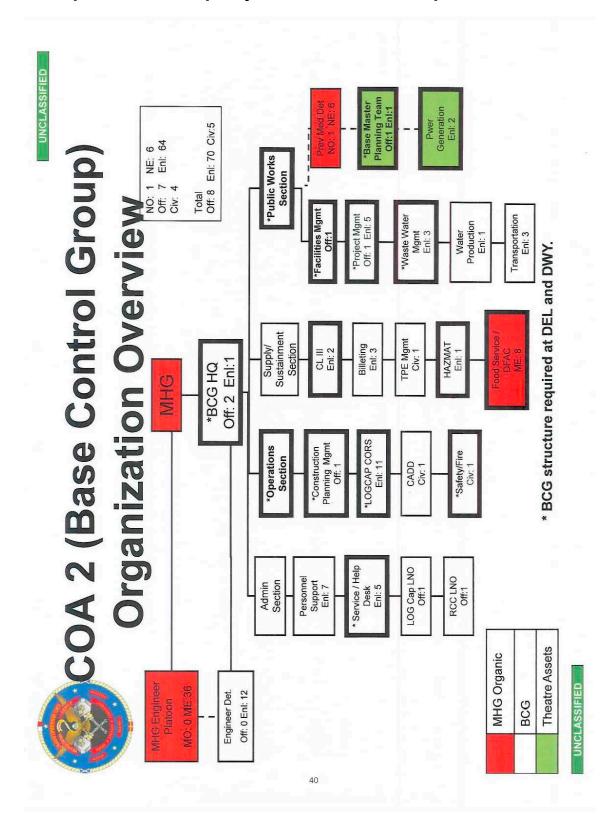
#### **Base camp mayor structure from Camp Phoenix**



#### Base camp mayor structure from the Bagram Airfield



#### **Proposed base camp mayor structure from Camp Leatherneck**



## Appendix B: Department of Public Works Structure Examples

### Department of public works structure example from Task force Rushmore – Kabul Base Cluster

First Quarter: 26 June 2010 - 31 August 2010  Second Quarter: 1 September 2010 - 30 November 2010  TASK FORCE RUSHMORE - DIRECTORATE OF PUBLIC WORKS (DPW)  MAJ Trent Bruce	ATTACHMENT 1: Quarterly Historical Repor	t			
MAJ Trent Bruce 7 May 2010 - Present DPW Director  MAJ Charles Hauck 7 May 2010 - Present DPW Doubtetor  MAJ Charles Hauck 7 May 2010 - Present DPW Doubt Director  MSG Gary DeVries 7 May 2010 - Present DPW NCOIC  MAJ Brian Phinney 7 May 2010 - Present DPW NCOIC  MAJ Brian Phinney 10 Aug 2010 - Present Developerations & Environmental Officer  CPT Robert Small 10 Aug 2010 - Present Departions & Environmental Officer  CW5 Leon Ewert 7 May 2010 - Present Construction OIC  MSG Travis Vallery 7 May 2010 - Present Construction NCOIC  LLT Cory Cody* 7 May 2010 - Present Construction NCOIC  SFC Brandon Voss 7 May 2010 - Present Departions NCO  SSG David Klein* 7 May 2010 - Present Mapping NCO  SSG Andrew Hanson 7 May 2010 - Present Depart Depart Depart Technician  SPC Chase Blair 7 May 2010 - Present DPW Technician  SPC Chad Hamman 7 May 2010 - Present DPW Technician  SPC Chad Hamman 7 May 2010 - Present DPW Technician  SPC Chad Hamman 7 May 2010 - Present DPW Technician	First Quarter: 26 June 2010 - 31 August	2010			
MAJ Trent Bruce DPW Director  MAJ Charles Hauck DPW Deputy Director  MSG Gary DeVries DPW NCOIC  MAJ Brian Phinney Land Manager / Master Planner  CPT Robert Small Operations & Environmental Officer  CW5 Leon Ewert Construction OIC  MSG Travis Vallery Construction NCOIC  LIT Cory Cody* Billeting OIC  SFC Brandon Voss Operations NCO  SSG Andrew Hanson Mapping NCO  SSG Andrew Hanson Mapping NCO  SPC Samuel Morse DPW Technician  SPC Chase Blair DPW Technician  7 May 2010 - Present 8 To May 2010 - Present 9 To May 2010 - Present	Second Quarter: 1 September 2010 - 30 No	vember 2010			
DPW Director  MAJ Charles Hauck DPW Deputy Director  MSG Gary DeVries DPW NCOIC  MAJ Brian Phinney Land Manager / Master Planner  CPT Robert Small Operations & Environmental Officer  CW5 Leon Ewert Construction OIC  MSG Travis Vallery Construction NCOIC  ILT Cory Cody* Billeting OIC  SFC Brandon Voss Operations NCO  SSG David Klein* Environmental Compliance NCO  SSG Andrew Hanson Mapping NCO  SFC Samuel Morse DPW Technician  SPC Chase Blair DPW Technician  T May 2010 - Present  7 May 2010 - Present  8 To May 2010 - Present  9 May 2010	TASK FORCE RUSHMORE - DIRECT	FORATE OF PUBLIC	WORKS	(DPW)	
DPW Deputy Director  MSG Gary DeVries DPW NCOIC  MAJ Brian Phinney Land Manager / Master Planner  CPT Robert Small Operations & Environmental Officer  CW5 Leon Ewert Construction OIC  MSG Travis Vallery Construction NCOIC  ILT Cory Cody* Billeting OIC  SFC Brandon Voss Operations NCO  SSG David Klein* Environmental Compliance NCO  SSG Andrew Hanson Mapping NCO  SFC Samuel Morse DPW Technician  SPC Chase Blair DPW Technician  SPC Chad Hamman DPW Technician  7 May 2010 - Present  8 PC Chase Blair PPW Technician  7 May 2010 - Present  7 May 2010 - Present  8 PC Chad Hamman PPW Technician  7 May 2010 - Present  8 PC Chad Hamman PPW Technician  7 May 2010 - Present  7 May 2010 - Present  8 PC Chad Hamman PPW Technician  7 May 2010 - Present		7	May 20	10 -	Present
DPW NCOTC  MAJ Brian Phinney Land Manager / Master Planner  CPT Robert Small Operations & Environmental Officer  CW5 Leon Ewert Construction OIC  MSG Travis Vallery Construction NCOIC  ILT Cory Cody* Billeting OIC  SFC Brandon Voss Operations NCO  SSG David Klein* Environmental Compliance NCO  SSG Andrew Hanson Mapping NCO  SGT John Shyne Billeting NCO  SPC Samuel Morse DPW Technician  SPC Chase Blair DPW Technician  SPC Chase Blair DPW Technician  T May 2010 - Present		7	May 20	010 -	Present
Land Manager / Master Planner  CPT Robert Small Operations & Environmental Officer  CW5 Leon Ewert Construction OIC  MSG Travis Vallery Construction NCOIC  LLT Cory Cody* Billeting OIC  SFC Brandon Voss Operations NCO  SSG David Klein* Environmental Compliance NCO  SSG Andrew Hanson Mapping NCO  SGT John Shyne Billeting NCO  SPC Samuel Morse DPW Technician  SPC Chase Blair DPW Technician  SPC Chad Hamman DPW Technician  10 Aug 2010 - Present  7 May 2010 - Present		7	May 20	10 -	Present
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Mapping NCO  SGT John Shyne Billeting NCO  SPC Samuel Morse DPW Technician  SPC Chase Blair DPW Technician  SPC Chad Hamman DPW Technician  7 May 2010 - Present		. 7	May 2	010 -	1 Nov 2010
Billeting NCO  SPC Samuel Morse DPW Technician  SPC Chase Blair DPW Technician  SPC Chad Hamman DPW Technician  7 May 2010 - Present 7 May 2010 - Present 7 May 2010 - Present		7	May 2	010 -	Present
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DPW Technician  SPC Chad Hamman  7 May 2010 - Present  DPW Technician		7	May 2	010 -	Present
DPW Technician		7	May 2	010 -	Present
1		7	May 2	010 -	Present
		1			
43		43			

> SPC Jason Schumacher 7 May 2010 - Present DPW Technician SPC Thomas Grady 7 May 2010 - Present Mapping Clerk CIV Jeffrey Study 20 Aug 2010 - Present Statement of Work Writer (CACI) CIV Samuel Moncada 13 Sep 2010 - Present Statement of Work Writer (CACI)

\*We lost two personnel to support the Camp Blackhorse CSG mission in the second quarter (1 November 2010).

# Organizational Chart \*Currently assigned a 3 pax Survey & Design Team (534<sup>th</sup> EN DET) until approximately 1 MAR 2011

2

Department of public works structure example from 645th RSG, **Kandahar Airfield** 

#### Chief, Directorate of Public Works

Direct the performance of the Directorate of Public Works (DPW) in providing infrastructure development and limited garrison sustainment operations for the US Garrison in support of United States Armed Forces and US-government contracted personnel on Kandahar Air Field (KAF), Afghanistan. Host the Base Camp Planning Board and the KAF All Meeting. Host the Deep South Development meeting. Provide Master Planning for the US Garrison

#### NCOIC, Directorate of Public Works

Supervises general engineering activities related to all construction and utility operations; assists DPW Director in construction planning, scheduling, and material estimating; assists in the preparation of operation orders, standing operating procedures, and contingency plans; provides staff supervision and principal noncommissioned officer direction to units engaged in performing general engineering missions; inspects construction and training activities; supervises performance of combat engineering missions.

#### A. Master Planning and Base Operations Division

#### OIC:

Directs and supervises the planning, development and maintenance of the built environment (buildings and infrastructure) on US controlled area of KAF. Controls US real property. Responsible for the Maintenance and Revision of the US Master Planning/Zoning documents. Chairs the US Base Camp Planning Board that has first review of all proposed projects on KAF. Coordinates with LOGCAP for maintenance and repair projects. Supports in-progress and final acceptance inspections of maintenance and repair projects. Coordinate with the FCCE Division to develop JFUB packets for projects that have been approved by the US Base Camp Planning Board.

#### Land Management - Base Operations NCO

Manages, coordinates all Base Infrastructure activities with COMKAF and NAMSA. Assists the Land Management/Operations OIC with the Base Camp Planning Board and KAF Infrastructure meeting. Conducts site visits to determine availability and use of land on KAF. Provides technical support for in-progress inspections and maintenance requests of electrical, minor construction, HVAC and plumbing projects. Reviews all project proposals for compliance with established requirements for design and maintenance of utilities. Provides environmental oversight of projects and advice to tenant units in the US footprint; assisted with JARB packets for US Garrison projects.

#### **B. Facility Contracting and Construction Division**

Facilities Construction Contract Management Engineer, 21D

Develops future projects. Responsible for preparation of engineering designs, plans, specifications and detailed cost estimates. Coordinates with customers in the development of project packets for submittal to JARB and JFUB boards. Act as the SME for the customer

in the development of PWS, site location map, project drawings and IGC. Facilitates inprogress and acceptance inspections of construction projects.

#### **Contracting NCO:**

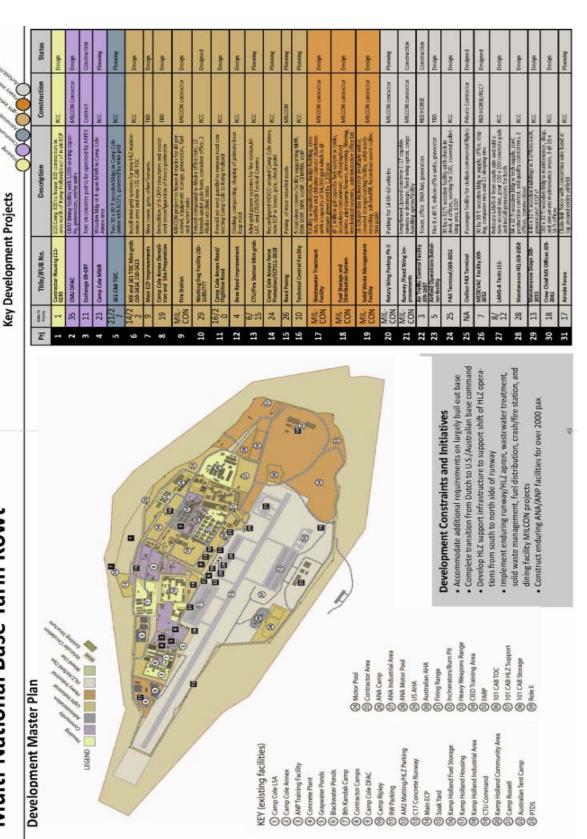
Assists the OIC in the development of future projects, cost estimates and PWS. Serves as the SME to assist the customer with contract development. Responsible for preparation of engineering designs, plans, specifications and detailed cost estimates.

#### **Construction NCO:**

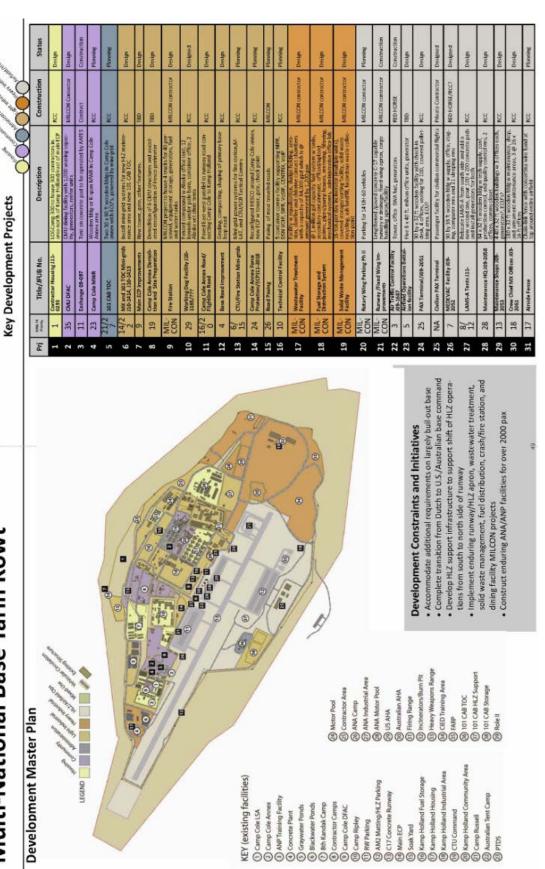
Assist the OIC in the development of future projects, specification, and inspection plans. Serves as the SME to provide the customer expertise in electrical, HVAC, Etc. Responsible to review plans for technical correctness and ensure compliance with utility standards.

## Appendix C: Example Ultralight Master Plan Produced by 577<sup>th</sup> EPBG

# Multi-National Base Tarin Kowt



# Multi-National Base Tarin Kowt



#### Projects S. 7. 10, 14, 31, will meet req. Project 9 will meet per-manent reg, tenp req. still underlined. Project 15 will meet req. Project 15 will meet reg Project 18 will meet req. Project 21, will meet req Project 17 will meet req Projects 24 and 26 meering Projects 27, 28, 29, 30 will meet req Project 2 will meet req Project 4 will meet reg Project 20 will meet Projects 6, 13 will m ring Project 1 will meet Project 5 will mee Mewite-Ecosed RW sepport capably on north side of names of administration of the property of the september of the more of cheer for installed, new MX ML, MX Signs, and Crew As weather copyrate CLT furnishes, concerts agrow, and argo handling capable. des bidg w 21 norms, new wooden th RW and fined wine passengers. prehensive feeling with two pre day inchest allon olty. 3 Deaged surfing and recycling areas, featurer Minight systems for new 101 CAB TOC, HIZ mainte-nance area, the station, and CTU commi. New 1000 person CAU DIAC in Camp Cole annex. New Mark in Camp Cole Arnex. Egypt Mary 19-billed poche water operar switches help II. McC, and learnfur within know indianed. Shop resear may MAC Mc Learn Lide and 200 person. Devicement DAC in Know jednach, and IEDAC in Certy Digley, JAM daliney is called a control of MAMI, Lander Cellin, Olivi. Brather, PK, witerbess, interest, Leakerthill Coart. Gyre, barter shop, PK, two Alphan stores, MWR, Shed and winde as internet, volley bell court. Extended but ratted and dusty road system. Jam Find shurtle bus service. Gravel paths and sidewalls. idees in Kamp Holland, 6 Meddens at FARP. Bettaton Ald Station in Camp Cob., Role II Facility in Komp Helling, Third Surgical Facility in Camp Ripley, contractor clinics. hree incinerators, burn pit, med-waste incinerator, 3.101 CAB SWA hart, Comp Ripley Child haildings, Keng Hilland CTU Debtaileer offices. ANZ manning panlage for 31 heapters, CLT diff-money, Medicos; and Tenedorf HZ Bending zones, now concrete agreen with LO Chincols spaces. Two LAMS A tents, various HL2 maintenance and operations support buildings. Deficione blast resistant clabits, each with 24 ones and adjacent USS Solities 250 man Aleka Core Requirements/Capacities Dyncorp: 4 tracks, no shelter, ? personnel. Housing in ANP, Kandak, ANA Comp. feelth & Safety

# Multi-National Base Tarin Kowt

# Tarin Kowt District, Uruzgan Province, South/ Central Afghanistan

Region: RC-South
December 2010 PAX: @3600
Land Area: 111d acres within boundary, 688 enclosed
Perimeter: Hesco barrier with 15 guard towers
LUA Status: Executed.
LOGCAP Band: 3



# Climate

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Population by Unit	Current	Planned
ANA	1500	2200
MTF (Australia)	512	512
101 CAB	433	433
1/2 SCR	206	206
CTU (BOS-I)	170	170
8/40 EN	19	101
PRT	55	22
MNBC-TK	30	20
1-245 AOB	45	45
Role II	42	42
Other	610	610



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- 1985'y. Soviet Union established a dirt aixtrip and austree facilities or 20cet. U.S. Joint Task force established Camp Pilipky bocoring fallen U.S. Marine Opt. John Willer Ripky.
   100°C bruch forces added Kamp Volland assumed base control a 200°C compress added Kamp Volland and assumed base control a 200°C camp force as added to house the LOI CAB.
   200°C CADD. Next Dutch forces deguared by the end of year.

# **Current Status**

- Multi-national base operated primanly by U.S. and Australian forces.
  - Substantial H.Z. and fleed vang aircraft facilities with an allvestints of 27 member mining complicities.

    Designated as an entiring spoke for ISA air operations.

    Substantial ANA element with major enduring expansion universe.

# Mission

- Support efforts to defeat insurgents in Uniqual Province
   Provide rotary and fixed wing support for regional security and
  - logistical operations

     Provide Stryker vehicle support for regional security /logistical
    - Support regional reconstruction efforts operations
      Train ANA and ANP personnel

4384

3684

TOTAL

LUA Boundary she Arc

Aerial 2020

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K-Span, CMU, Pre-Engineered Building, SEAhut, Bhut, etc.

Does facility have ANSF Meater Plan Applicability

Minimum Military Requirements Does facility have YES A

Define Facility Requirements (Purpose, Reg'd Life Stan, etc.) Ref. OPLAN 38302

January 2011 Department of the Air Force Expeditionary Prime BEEF Group

#### REPORT DOCUMENTATION PAGE

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6. AUTHOR(S)		5d. PROJECT NUMBER
H. Garth Anderson and Kurt Kinnevan		
		5e. TASK NUMBER
		622784T4100
		5f. WORK UNIT NUMBER
		122G16
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#### 13. SUPPLEMENTARY NOTES

#### 14. ABSTRACT

Since 2001, contingency operations in the US Central Command (CENTCOM) theater have established a large number of base camps, of various sizes. To manage base camps, the Army and other Services have commonly used the concept of establishing a "Mayor Cell" - the functional equivalent of a garrison commander at a Continental United States (CONUS) installation. An adequately staffed Mayor Cell can effectively manage a base camp up to 10,000 personnel. Larger base camps or base clusters may require multiple Mayor Cells.

However, over the past two decades, the US Forces' "organic" base camp capabilities have diminished, i.e., our forces increasingly come to rely on costly contract support to supply essential functions and services. This circumstance, combined with insufficient or non-existent infrastructure, lack of trained or experienced personnel, and individual stove-piped systems, contributes to operational gaps that distract commanders from their primary mission: inefficient operations of base camps; and security, safety, environmental and health risks to deployed forces. This study was undertaken to address operations and management (O&M) requirements requisite for the effective administration and support of a contingency base camp.

#### 15. SUBJECT TERMS

base camp, forward operating bases (FOBs), utilities, waste management

16. SECURITY CLASSIFICATION OF:		17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON	
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